| Diploma Programme subject outline—Group 4: experimental sciences | | | | | | | | | | |
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| School name |  | | | | | | School code |  | | |
| Name of the DP subject |  | | | | | | | | | |
| Level  (indicate with X) |  |  |  | |  |  | | |  |  |
| Higher |  | Standard completed in two years | |  | Standard completed in one year \* | | |  |  |
|  |  |  | | |  |  |
| Name of the teacher who completed this outline |  | | | **Date of IB training** | | |  | | | |
| **Date when outline was completed** |  | | | **Name of workshop**  (indicate name of subject and workshop category) | | |  | | | |

\* All Diploma Programme courses are designed as two-year learning experiences. However, up to two standard level subjects, excluding languages ab initio and pilot subjects, can be completed in one year, according to conditions established in the *Handbook of procedures for the Diploma Programme*.

1. Course outline

* Use the following table to organize the topics to be taught in the course. If you need to include topics that cover other requirements you have to teach (for example, national syllabus), make sure that you do so in an integrated way, but also differentiate them using italics. Add as many rows as you need.
* This document should not be a day-by-day accounting of each unit. It is an outline showing how you will distribute the topics and the time to ensure that students are prepared to comply with the requirements of the subject.
* This outline should show how you will develop the teaching of the subject. It should reflect the individual nature of the course in your classroom and should not just be a “copy and paste” from the subject guide.
* If you will teach both higher and standard level, make sure that this is clearly identified in your outline.

|  | Topic/unit  (as identified in the IB subject guide)  State the topics/units in the order you are planning to teach them. | Contents | Allocated time | | | Assessment instruments to be used | Resources  List the main resources to be used, including information technology if applicable. |
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| One class is |  | minutes. |
|  |
| In one week there are |  | classes. |
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|  |  |  |
| Year 1 |  |  |  | | |  |  |
|  |  |  | | |
|  |  |  | | |
|  |  |  | | |
| Year 2 |  |  |  | | |  |  |
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1. The group 4 project

As the IB guides say, “The group 4 project is a collaborative activity where students from different group 4 subjects work together on a scientific or technological topic, allowing for concepts and perceptions from across the disciplines to be shared in line with aim 10—that is, to ‘encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.’” Describe how you will organize this activity. Indicate the timeline and subjects involved, if applicable.

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1. IB practical work and the internal assessment requirement to be completed during the course

As you know, students should undergo 40 hours (at standard level) or 60 hours (at higher level) of practical work related to the syllabus. Use the table below to indicate the name of the experiment you would propose for the different topics in the syllabus. Indicate which experiments you would use for assessing each of the internal assessment criteria—design (D), data collection and processing (DCP) and conclusion and evaluation (CE).

An example is given. Add as many rows as necessary.

| Name of the topic | Experiment | Indicate the experiments you would use for assessing design (D),  data collection and processing (DCP) and conclusion and evaluation (CE)  (use D, DCP or CE) | Any ICT used?  Remember you must use all five within your programme. |
| --- | --- | --- | --- |
| Acids and bases | Titration | DCP | Yes |
|  |  |  |  |
|  |  |  |  |
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1. Laboratory facilities

Describe the laboratory and indicate whether it is presently equipped to facilitate the practical work that you have indicated in the chart above. If it is not, indicate the timeline to achieve this objective and describe the safety measures that are applicable.

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1. Other resources

Indicate what other resources the school has to support the implementation of the subject and what plans there are to improve them, if needed.

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1. Links to TOK

You are expected to explore links between the topics of your subject and TOK. As an example of how you would do this, choose one topic from your course outline that would allow your students to make links with TOK. Describe how you would plan the lesson.

|  |  |
| --- | --- |
| Topic | Link with TOK (including description of lesson plan) |
|  |  |

1. International mindedness

Every IB course should contribute to the development of international mindedness in students. As an example of how you would do this, choose one topic from your outline that would allow your students to analyse it from different cultural perspectives. Briefly explain the reason for your choice and what resources you will use to achieve this goal.

|  |  |
| --- | --- |
| Topic | Contribution to the development of international mindedness (including resources you will use) |
|  |  |

1. Development of the IB learner profile

Through the course it is also expected that students will develop the attributes of the IB learner profile. As an example of how you would do this, choose one topic from your course outline and explain how the contents and related skills would pursue the development of any attribute(s) of the IB learner profile that you will identify.

|  |  |
| --- | --- |
| Topic | Contribution to the development of the attribute(s) of the IB learner profile |
|  |  |